

## CAUTION

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Gulf Ag

# ClearUp Bio Blue Marker Herbicide

Active Constituent: 700 g/kg GLYPHOSATE present as the mono-ammonium salt

A non-selective herbicide containing a blue marker for the control of annual and perennial and aquatic weeds in pasture, designated aquatic situations, commercial, industrial and public service areas.

GROUP	M	HERBICIDE
-------	---	-----------

APVMA Approval No: 63557/0509

Pack Sizes: Packs with pre-packs: 15kg (5x3kg), 10kg (10x1kg), 5kg (10x500g)

Single packs: 500g, 1kg, 3kg

### GENERAL INSTRUCTIONS

This product is a non-volatile, water soluble granule with non-selective herbicidal activity against many annual and perennial broadleaf weeds and grasses. This product is absorbed by plant foliage and green stems. It is inactivated immediately in the soil and does not provide residual weed control. This product moves through the plant from the point of contact and into the root system.

Visible effects on annual weeds take 3-7 days, but on perennial weeds may not be obvious for 2-3 weeks or longer in some cases. Visible effects of control may be delayed by cool or cloudy weather at and following treatment. Visible effects are a gradual yellowing and wilting of the plant which advances to complete browning of above ground growth and deterioration of underground plant parts.

Delay application until vegetation has emerged to the stages described in the 'Weeds Controlled' tables. Unemerged parts arising from attached underground rhizomes or root stocks of perennials will not be affected by spray and will continue to grow. For this reason best control of most perennial weeds is obtained at late growth stages approaching maturity.

### MIXING INSTRUCTIONS

This granular product dissolves readily in water. Where product is supplied in Water Soluble Measure Packs, these will readily break up in the spray tank and dissolve in a few minutes.

For boom applications, water volumes should not be less than 6 litres per 1kg of Gulf Ag ClearUp Bio Blue Marker Herbicide.

Reduced results may occur if water containing soil is used, e.g. water from ponds and unlined ditches or of hard water containing calcium salts is used.

Ensure the spray tank is free of any residue of previous spray materials.

Fill the spray tank with one half the required amount of clean water and add the proper amount of this product. Mix well before adding the remaining portion of water. Placing the filling hose below the surface of the spray solution will prevent excessive foaming.

Removing hose from tank immediately after filling will prevent back siphoning into water source. Do not use mechanical agitators as these may cause excessive foaming.

For mixing instructions for tank mixes, see Tank Mixtures.

### TANK MIXTURES

This product may be tank-mixed with the following herbicides, insecticides and additives where recommended. Read and follow all label directions, restraints, plant-back periods, withholding periods and safety directions for the tank mix products.

#### Mixing Instructions for all Tank Mixtures

1. Fill the spray tank 1/3 to 1/2 full with clean water and start agitation.
2. Add recommended herbicide/insecticide/additive to the spray tank and mix thoroughly.
3. Where ammonium sulphate is recommended, add Liquid Boost Herbicide Adjuvant at a rate of 2L/100L spray solution and mix thoroughly.
4. Add Gulf Ag ClearUp Bio Blue Marker Herbicide as granules or as Water Soluble Measure Packs and the remaining water. Mix thoroughly to ensure granules are dispersed and any Water Soluble Bags are fully dissolved.
5. Add surfactant. If required, near the end of the filling process to minimise foaming.
6. Always maintain adequate agitation during application and use the tank mix promptly.

### TANK MIXTURES – HERBICIDES

Atrazine flowable\* (DO NOT apply the tank-mix for Barnyard grass control), 2,4-D ester, dicamba, chlorsulfuron, simazine flowable\*, sulfometuron, pendimethalin, metsulfuron, triasulfuron, LVE MCPA, and oxyfluorfen.

The addition of oxyfluorfen at 75mL/ha to recommended rates of Gulf Ag ClearUp Bio Blue Marker Herbicide prior to planting wheat or barley will improve knockdown and increase the speed at which treated weeds develop visible signs of phytotoxicity.

\*Add crystalline ammonium sulphate as per directions below.

### TANK MIXTURES – ADDITIVES

Ammonium Sulphate: Add Boost to water first at a rate of 2L/100L spray solution.

(DO NOT apply the tank mix for Barnyard grass control).

The use of Boost with Gulf Ag ClearUp Bio Blue Marker Herbicide, when used to control ANNUAL weeds MAY improve the performance of Gulf Ag ClearUp Bio Blue Marker Herbicide under adverse environmental conditions such as cool, cloudy weather and assist in minimising the antagonism in tank mixes of Gulf Ag ClearUp Bio Blue Marker Herbicide and flowable triazine herbicides. Boost may be corrosive to metal parts of the sprayer. Thoroughly flush tanks, pumps and nozzles with water after use.

### Spray Sure Penatra Organosilicone Surfactant

Rate: 200mL/100L spray solution.

Add when treating Bracken (boom application), Gorse, Eucalypt suckers and Lantana.

### TANK MIXTURES – INSECTICIDES

This product is compatible with the following insecticides: phosmet, dimethoate, chlorpyrifos, fenvalerate and emulsifiable concentrates of dimethoate and fenitrothion. Other insecticides have not been tested.

### APPLICATION INFORMATION

This product is a non-selective translocated herbicide. Direct spray contact, or even slight drift, may cause severe injury or destruction of any growing crop or other desirable plants including trees. Clean all equipment after use by thoroughly washing with water.

### BOOM EQUIPMENT

Use recommended rates of this product in 75 to 200 litres of clean water per hectare. When using this product at 250-700g/ha spray volumes in the range 25-100L/ha are preferred. Fan nozzle equipment is recommended, using pressures in the range 240-280kPa. Boom height must be set to ensure double overlap of nozzle patterns at the top of the weed canopy.

### HIGH VOLUME APPLICATION (e.g. Knapsack and Handgun Equipment)

Adjust equipment to achieve an even spray pattern: for handgun equipment a D6 spray tip (Spraying Systems Australia P/L) or equivalent and an operating pressure of 400-700kPa are recommended. Apply to ensure complete and uniform wetting of all foliage.

### LOW VOLUME APPLICATION (e.g. Gas Gun or Splatter Gun)

Apply as even spray to cover all foliage. Refer to Weeds Controlled for the dilution and volume of mixture to be applied. The dilution is specific as 'Low volume mixture, kg Product : L Water'. For example, a 1:19 mixture equals one part (1kg) product plus 19 parts (litres) water.

### WIPER EQUIPMENT

Wiper equipment (e.g. ropewick, canvas, flat or carpet applicators) may be used to apply this product on to weeds growing in pasture and non-crop areas. Avoid

contact with desirable vegetation. In pasture, operate wiper equipment a minimum of 10cm above the pasture. Weeds should be at least 15cm above the pasture at time of application. Speed of travel should be no greater than 8km/hr. Best results are achieved at lower speeds and where two applications are made in opposite directions (double pass). Where weeds are of variable height, or occur in dense infestations or clumps, some plants may not be contacted by the herbicide solution. In these cases repeat treatment may be necessary. Mix only enough herbicide solution for immediate requirements. Do not store mixed solution for more than a few days. Flush out equipment with water after use.

**RATE:** Mix 1kg of this product with 5 Litres clean water to prepare a 17% solution. This product may be used according to the above directions for suppression or control of many annual and perennial weeds. See **Weeds Controlled** tables for specific use recommendations.

### AERIAL EQUIPMENT (by Helicopter Only)

Gulf Ag ClearUp Bio Blue Marker Herbicide may be applied by helicopter for the control of weeds in pastures up to a maximum rate of 2.1 kg/ha where specified by this label. **DO NOT** apply aerial treatments in situations where drift onto sensitive crops, pastures or desirable trees is likely to occur.

Spray with a properly calibrated helicopter using the half overlap opposite pass technique and with a swath width set to minimise distribution variation. Use a spray volume not less than 20L/ha and use settings to produce a median droplet diameter of 250-350 microns. Swath width will need to be reduced to avoid striping under light wind conditions and/or application to tall, dense targets. Avoid spraying in still conditions and where conditions favour temperature inversions. Turn off spray booms whilst passing over creeks and dams. Thoroughly wash helicopter after each day of spraying to remove herbicide residues.

### APPLICATION ON HILLY TERRAIN

Increase water volume to 30-80L/ha and increase median droplet diameter of output to at least 300 microns to optimise deposition of spray output onto weeds.

### AIR TEMPERATURE AND RELATIVE HUMIDITY

**DO NOT** apply Gulf Ag ClearUp Bio Blue Marker Herbicide by aircraft at temperatures above 30°C. Increase spray output to at least 30L/ha when temperatures rise above 25°C. Avoid application when relative humidity falls below 35%.

### AVOID DRIFT

**DO NOT** apply treatments with spraying equipment or under weather conditions, which are likely to cause spray drift onto nearby susceptible crops, pastures or other sensitive plants. **DO NOT apply treatments under very light (<4km/h) or inversion conditions or where wind speed exceeds 12km/h.**

### APPLICATION CHECKLIST

- Do not treat weeds under poor growing or dormant conditions (such as occur in drought, waterlogging, disease, insect damage or

following frosts) as reduced weed control may result. Reduced efficacy may also occur when treating weeds heavily covered with dust or silt.

- **Do not** add additional surfactant, or mix with any other agricultural chemicals, herbicide oils, or any other materials except as specifically directed on this label.
- Rainfall occurring up to 6 hrs after application may reduce effectiveness. Heavy rainfall within 2hrs after application may wash the chemical off the foliage and a repeat treatment may be required.
- Delay treatment of plants wet with dew or rain if water droplets run-off when plants are disturbed.
- DO not disturb treated weeds by cultivation, sowing or grazing for one day after treatment of annual weeds and 7 days for perennial weeds to ensure herbicide absorption.
- A Withholding Period for grazing stock is not required. However, it is recommended that grazing of treated plants be delayed (as recommended above) to ensure herbicide absorption. Certain plants such as: Soursob, St. Johns Wort & Bracken may be naturally toxic to stock. Where known toxic plants are present, grazing should be delayed until complete browning of treated plants has occurred.
- Where required the addition of non-ionic surfactant is recommended at a rate of 100mL of a 600g/L product (or equivalent) per 100L spray solution.

#### EQUIPMENT MAINTENANCE & USAGE

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fibreglass or plastic or plastic-lined containers. This product, or spray solutions of this product, react with galvanized steel or unlined steel (except stainless steel) containers and tanks, to produce hydrogen gas, which may form a highly combustible gas mixture. This gas mixture can flash or explode if ignited by open flame spark, welders' torch or other ignition source. Spray tank, pumps, lines and nozzles should be thoroughly rinsed with clean water following application to prevent extensive corrosion.

#### RESISTANT WEEDS WARNING

GROUP	M	HERBICIDE
-------	---	-----------

Gulf Ag ClearUp Bio Blue Marker Herbicide is a member of the Glycine group of herbicides. Gulf Ag ClearUp Bio Blue Marker Herbicide has the inhibitors of EPSP synthase mode of action. For weed resistance management Gulf Ag ClearUp Bio Blue Marker Herbicide is a Group M herbicide. Some naturally occurring weed biotypes resistant to Gulf Ag ClearUp Bio Blue Marker Herbicide and other inhibitors of EPSP synthase herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. Gulf Ag ClearUp Bio Blue Marker Herbicide or other inhibitors of EPSP synthase herbicides will not control these resistant weeds. Since the occurrence of resistant weeds is difficult to detect prior to use, Gulf Ag Pty Ltd accepts no liability for any losses that may result from the failure of Gulf

Ag ClearUp Bio Blue Marker Herbicide to control resistant weeds.

#### PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

Avoid contact with foliage, green stems or fruit of crops, desirable plants and trees, since severe injury or destruction may result.

**Drift Warning:** DO NOT apply under meteorological conditions or from spraying equipment, which could be expected to cause spray to drift onto nearby susceptible plants, adjacent crops, crop lands or pastures. **DO NOT apply treatments under very light (<4km/h) or inversion conditions or where wind speeds exceed 12km/h.**

#### PROTECTION OF WILDLIFE, FISH, CRUSTACEA & ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used containers. When controlling weeds near water, refer to label directions to minimise the entry of spray into the water.

#### STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Do not contaminate seed, feed or foodstuff. Shake empty bag into spray tank until the bag is empty. Do not dispose of undiluted chemicals on site. Puncture or shred and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

#### SAFETY DIRECTIONS

Harmful if swallowed. Will damage eyes and will irritate the skin. Avoid contact with eyes and skin when opening the container and preparing product for use and wear elbow-length PVC gloves and goggles. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each days use, wash gloves, goggles and contaminated clothing.

#### FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

#### MATERIALS SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet (MSDS), which can be obtained from the supplier.

#### CONDITIONS OF SALE

The use of Gulf Ag ClearUp Bio Blue Marker Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Gulf Ag Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Gulf Ag Pty Ltd accepts no responsibility for any consequences whatsoever resulting from the use of this product.

**In an Emergency Dial 000 Police or Fire Brigade**

## DIRECTIONS FOR USE

**RESTRAINTS: DO NOT** disturb treated weeds by cultivation, sowing or grazing for 1 day after treatment of annual weeds and 7 days for perennial weeds. **DO NOT** treat weeds under poor growing or dormant conditions such as occur in drought, water logging, disease, insect damage or following frost. Reduced control may also occur when treating weeds heavily covered with dust or silt. Rainfall occurring up to 6 hours after application may reduce effectiveness. Heavy rainfall within 2 hours of application may wash the chemical off the foliage and a repeat treatment may be required. **DO NOT** use prior to sowing tomatoes.

### 1. GENERAL WEED CONTROL

Situation	Critical Comments (Refer to Application Checklist before using).
For general weed control in commercial, industrial and public service areas.	For the control of many grasses and broadleaf weeds <b>RATE: 5g per litre of water.</b>
For specific weeds, brush and woody weeds or unwanted trees, refer to the application <b>WEEDS CONTROLLED TABLE.</b>	Apply when weeds are actively growing. Apply to ensure complete and uniform wetting of foliage. Visible symptoms may take from 3 to 7 days to develop.

### 2. ANNUAL WEED CONTROL

Situation	Weeds	Rate	Critical Comments
<b>Non-Cultivated Situations</b>	Amaranth	<i>Amaranthus spp</i>	<b>BOOM</b> 1 – 1.6 kg/ha  <b>HANDGUN</b> 300-500g per 100L  <b>KNAPSACK</b> 45 – 75g per 15L  <b>WIPER EQUIPMENT</b> <b>See Application section</b>
	Barley grass	<i>Hordeum leporinum</i>	
	Barnyard Grass	<i>Echinochloa spp</i>	
	Brome Grass	<i>Bromus spp</i>	
	Caltrop	<i>Tribulus terrestris</i>	
	Canary grass	<i>Phalaris spp</i>	
	Capeweed	<i>Arctotheca calendula</i>	
	Cereals	(volunteer wheat, barley, oats, sorghum)	
	Chickweed	<i>Stellaria media</i>	
	Cobblers Pegs	<i>Bidens pilosa</i>	
	Deadnettle	<i>Lamium amplexicaule</i>	
	Doublegee	<i>Emex australis</i>	
	Fumitory	<i>Fumaria spp</i>	
	Ground cherry	<i>Physalis angulata</i>	
	Lesser Swinecress	<i>Coronopus dudymus</i>	
	Liverseed grass	<i>Urochloa panicoides</i>	
	Mintweed	<i>Salvia reflexa</i>	
	Paradoxa grass	<i>Phalaris paradoxa</i>	
	Patterson's Curse	<i>Echium plantagineum</i>	
	Pigweed	<i>Portulaca oleracea</i>	
	Potato weed	<i>Galinsoga parviflora</i>	
	Ryegrass	<i>Lolium rigidum</i>	
	Saffron thistle	<i>Carthamus lanatus</i>	
	Silver grass	<i>Vulpia spp</i>	
	Sow Thistle	<i>Sonchus oleraceus</i>	
	Spear thistle	<i>Cirsium vulgare</i>	
	Spiny Burrgrass	<i>Cenchrus spp</i>	
	Spurge	<i>Euphorbia spp</i>	
	Sub. Clover	<i>Trifolium subterraneum</i>	
	Thornapple	<i>Datura spp</i>	
	Wild Mustard	<i>Sisymbrium officinale</i>	
	Wild oats	<i>Avena ludoviciana</i> <i>A. fatua</i>	
	Wild Turnip	<i>Brassica tournefortii</i>	
Winter Grass	<i>Poa annua</i>		
Variegated Thistle	<i>Silybum marianum</i>		
			Annual weeds may be sprayed anytime they are actively growing. Use the lower rate on weeds up to 15cm tall, increase to the higher rate where weeds are over 15cm tall. Visible symptoms develop in 3-7 days, but complete desiccation may take 20-30 days under cool conditions.
			This product does not provide residual weed control. Repeat treatments may be necessary to control later germinating weeds.
			For residual control of ANNUAL weeds, this product may be used as a tank mixture with certain residual herbicides. <b>See TANK MIXTURES</b> for directions.

### 3. PERENNIAL WEED CONTROL

Weeds	Rate			Critical Comments
	Boom kg/ha	Handgun g/100L	Knap-sack g/15L	
Alligator Weed* ( <i>Alternanthera philoxeroides</i> )	-	500g	75g	*Note: Also refer to Critical Comments of the AQUATIC WEEDS Section No 6 for important restrictions in the application of Glyphosate in aquatic situations. Apply when actively growing, from Summer through Winter. Floating form only.
Bamboo ( <i>Bambusa spp</i> )	-	500g	75g	Apply to actively, growing foliage and/or regrowth which is between 1m and 2m tall. <b>Cut stump.</b> Dilute 1:12; i.e. mix 1 part of this product plus 12 parts water. Cut stems back to 20cm high, pour mixture down hollow stem or wet the cut.
Bent Grass ( <i>Agrostis capillaris</i> )	1.3kg	250g	40g	Apply to actively growing plants in late Spring when they have some seed head development but before summer moisture stress. Bent grass should NOT be heavily grazed at spraying. Follow up management is required to limit seedling re-establishment. Full disturbance with a tyned implement should follow, 10-21 days after spraying. Application of this product should be followed by re-seeding pasture.
Blady Grass ( <i>Imperata cylindrica</i> )	4.5kg	700g	100g	Apply to actively growing plants at the early head stage.
Bracken ( <i>Pteridium esculentum</i> )	4.5kg plus Penatra 200mL/ 100L spray	700g	115g	For boom application, always add Penatra, otherwise reduced results will occur. Addition of Penatra (200mL/100L spray) may improve control with handgun application. Wiper application is recommended. Wiper Equipment: Double pass application is required for pipewick equipment. Bracken should be slashed in winter/spring prior to treatment. Apply this product in March-May to fully unfurled actively growing fronds but prior to frosts. Visible symptoms may not be fully apparent until the next season. Complete control will not be achieved from one application. Repeat treatment is recommended, preferably associated with pasture improvement.
Brown Beetle Grass* ( <i>Diplachne spp</i> )	1.5	250g	40g	Apply to actively growing plants. Do not apply to partially submerged plants.
Carpet Grass ( <i>Axonopus spp</i> )	1.5 – 3kg	500g	75g	Apply to actively growing plants at the early head stage.
Cocksfoot ( <i>Dactylis glomerata</i> )	1.5 – 3kg	500g	75g	Apply to actively growing plants at the early head stage.
Couch ( <i>Cynodon dactylon</i> )	4.5kg	700g	100g	Apply to actively growing plants when most have reached the early head stage. In SA and WA apply to active plants during Oct-Nov for best results.
Cumbungi* ( <i>Typha spp</i> )				Apply to actively growing plants at the early to full head stage (summer-autumn). Re-treatment may be required to restrict seedling re-establishment. Application by wiper equipment is recommended (not Tasmania). <b>Refer Wiper Equipment section.</b>
Flatweed (Cat's ear) ( <i>Hypochoeris radicata</i> )	1.5 – 3kg	500g	75g	Apply to fully developed rosettes at the early flower stage.
Glyceria ( <i>Glyceria maxima</i> )	3kg	700g	100g	Apply to actively growing plants at the mature head stage in late summer-autumn. Add Spray Sure Wetter 600 Non-Ionic Surfactant at 200mL/100L. <b>Note:</b> Control of Glyceria is only

Weeds	Rate			Critical Comments
	Boom kg/ha	Handgun g/100L	Knap-sack g/15L	
				<b>*Note: Also refer to Critical Comments of the AQUATIC WEEDS Section No 6 for important restrictions in the application of Glyphosate in aquatic situations.</b>
				allowable in dry drains and channels and dry margins of dams, lakes and streams. <b>DO NOT</b> apply to weeds growing in or over water. <b>DO NOT</b> spray across open bodies of water and <b>DO NOT</b> allow spray to enter water. <b>DO NOT</b> allow water to return to dry channels within 4 days of application.
Guinea Grass ( <i>Panicum maximum</i> )	4.5kg	700g	100g	Apply to actively growing plants when most have reached the early head stage. For Wiper application refer <b>Wiper Equipment Section</b> .
Hoary Cress ( <i>Cardaria draba</i> )	0.7kg	250g	40g	For maximum long-term reduction apply from late Jul-Sept when plants are in late rosette to flowering stage. Plants should be actively growing and not under stress of drought, frost or waterlogging. Application may be integrated with long fallows. Cultivation may start 7 days after spraying. Wiper equipment may be used where sufficient stem elongation occurs, refer to <b>Wiper Equipment section</b> . In Tasmania add Spray Sure Wetter 600 Non-Ionic Surfactant at 200mL/100L spray.
Johnson Grass ( <i>Sorghum halepense</i> ) Kangaroo Grass ( <i>Themeda australis</i> ) Kikuyu Grass ( <i>Pennisetum clandestinum</i> )	3kg	500g	75g	Apply to actively growing plants at the early head stage. For application by wiper equipment on Johnson Grass, off-type and Volunteer Sorghum refer to <b>Wiper Equipment section</b> .
Lovegrass, African ( <i>Eragrostis curvula</i> )	3kg	500g	75g	Apply to actively growing plants. Re-treatment and/or pasture improvement is recommended to restrict seedling re-establishment.
Ludwigia peruviana	-	500g	75g	Apply when actively growing and at or beyond the early bloom stage of growth, but before autumn colour changes occur. Thorough coverage is necessary for best control.
Nutgrass ( <i>Cyperus rotundus</i> )	3kg	500g	75g	<b>NON-CULTIVATED SITUATIONS:</b> Apply to actively growing plants in late summer-autumn (Feb-Apr) when at least 20% have reached the head stage.
Pampas Grass ( <i>Cortaderia spp</i> )	-	500 or 700g	75 or 100g	Apply to actively growing plants during spring, summer or autumn. Ensure complete coverage of the foliage. For best results, apply after flowering. For easier access large plants may be cut or burnt prior to spraying, but first allow regrowth to reach 1m. Use the higher rate on plants over 1m high. <b>LOW VOLUME APPLICATION:</b> Use 1:19 (5%) mixture of this product to water. Apply 2 x 2mL per 0.5m height. Ensure spray contacts all foliage.
Paragrass* ( <i>Brachiara mutica</i> )	4.5kg	700g	100g	Apply to actively growing plants when most have reached the early head stage.
Paspalum ( <i>Paspalum dilatatum</i> )	3kg	500g	75g	
Pellitory ( <i>Parietaria judaica</i> )	-	500g	75g	Apply to actively growing plants prior to seeding. Repeat applications may be necessary to control seedlings and/or regrowth.
Phalaris ( <i>Phalaris aquatica</i> )	1.5 – 3kg	250 – 500g	40 – 75g	Apply to actively growing plants during winter-spring. Use the lower rate where only knockdown is required, e.g. prior to burning of firebreaks.

Weeds	Rate			Critical Comments
	Boom kg/ha	Handgun g/100L	Knap-sack g/15L	
				<b>*Note: Also refer to Critical Comments of the AQUATIC WEEDS Section No 6 for important restrictions in the application of Glyphosate in aquatic situations.</b>
				Burning can usually start 14-21 days after spraying. For long term control increase to the higher rate.
Phragmites, Common Reed* ( <i>Phragmites australis</i> )	4.5kg	700g	100g	Apply to actively growing fully-developed plants approaching the early head stage. Visible symptoms of control may be slow to develop and may not be fully apparent until the next season. For application by wiper equipment <b>refer to Wiper Equipment section.</b>
Plantains ( <i>Plantago spp</i> )	1.5kg	350g	50g	Apply to actively growing plants at the early head stage. Symptoms may be slow to develop.
Prairie Grass ( <i>Bromus unioloides</i> ) Qld Blue Grass ( <i>Dichanthium sericeum</i> ) Red-Leg Grass ( <i>Brothriocloa ambigua</i> ) Rhodes Grass ( <i>Chloris gayana</i> )	3kg	500g	75g	Apply to actively growing plants at the early head stage.
Rope Twitch ( <i>Agropyron repens</i> )	3kg	500g	75g	Apply in late summer-autumn to actively growing plants with foliage at least 20cm high. To ensure maximum shoot emergence the area should not be cultivated in the period from the preceding winter until the time of spraying.
Rushes* ( <i>Juncus spp</i> )	-	-	-	Apply by wiper equipment to actively growing plants. Where there is a large proportion of dead foliage, pre-slashing is recommended. Allow adequate regrowth before treatment. <b>Refer Wiper Equipment section for application instruction.</b>
Sedge, Tall* ( <i>Carex appressa</i> )	1 or 2kg	250 or 500g	40 or 75g	Apply to actively growing plants in flowering to post-flowering period (Oct-Apr). Use the lower rate only if the stand has been stashed prior to treatment. Re-treatment may be necessary. Visible symptoms may not be fully apparent for up to 3 months. Use of CDA equipment is not recommended.
Silverleaf Nightshade ( <i>Solanum elaeagnifolium</i> )	-	1kg	150g	Use ONLY under good soil moisture conditions. Apply to actively growing plants at the late flowering to berry stage. Repeat spraying will be necessary to restrict regrowth and seedling re-establishment.
Sorrel ( <i>Rumex acetosella</i> )	3kg	500g	75g	Apply to actively growing plants when most have reached the early bud stage.
Soursob ( <i>Oxalis pes-caprae</i> )	0.7kg	250g	40g	For maximum long term reduction apply from late July to early September but before natural plant yellowing (senescence) occurs. Soursob should be actively growing and not under stress of drought or waterlogging. If heavy frosting has occurred allow recovery before spraying. If heavy grazing has occurred allow recovery of foliage to at least 5cm before spraying.
St John's Wort ( <i>Hypericum perforatum</i> )	1.5kg	250g	40g	Apply to actively growing plants in the flowering to post-flowering procumbent stem stage (generally Nov-May). Re-treatment or oversowing with improved pasture species may be necessary to restrict seedling or re-establishment.

Weeds	Rate			Critical Comments
	Boom kg/ha	Handgun g/100L	Knap-sack g/15L	
Thistle, Artichoke ( <i>Cynara cardunculus</i> )	1.5 – 3kg	250g	40g	Apply at the rosette-early head stage.
Thistle, Californian ( <i>Cirsium arvense</i> )	3kg	500g	75g	Apply to actively growing plants at the flowering stage. To ensure maximum shoot emergence the area should NOT be cultivated prior to spraying. Re-treatment and/or pasture improvement may be necessary to restrict seedling re-establishment.
Water Couch* ( <i>Paspalum distichum</i> )	4.5kg	700g	100g	Apply to actively growing plants in late summer-autumn (Feb-March). DO not treat after March because of the onset of winter dormancy. Full results may not be visible until the following spring. Not more than ¼ of the weed should be submerged at the time of treatment.
Water Hyacinth* ( <i>Eichornia crassipes</i> )	3 – 4.5kg	500 – 700g	75 – 100g	Apply when actively growing and at or beyond the early bloom stage of growth. Use the higher rate on dense infestations.
Water Lettuce* ( <i>Pistia stratiotes</i> )	-	500 – 700g	75 – 100g	Best results are obtained from mid summer through to winter. Use the higher rate on dense infestations.
Waterlily, Yellow* ( <i>Nymphaea mexicana</i> )	3kg	500g	75g	Apply when there is a maximum emergence of floating leaves. Allow 2-3 wks for symptoms to develop, then retreat any unaffected plants. Use low volume sprayer. <b>Refer to 'Aquatic Areas' in Section 6.</b>
Yorkshire Fog ( <i>Holcus lanatus</i> )	1.5 – 3kg	500g	75g	Apply to actively growing plants at the early head stage.

#### 4. BRUSH AND WOODY WEEDS

Weeds	Rate			Critical Comments
	Handgun g/100L	Knap-sack g/15L	Low Volume kg Product to L Water	
Bitou Bush/Boneseed ( <i>Chrysanthemoides monilifera</i> )	250 or 500g	40 or 75g	1:59 or 1:39	Apply to actively growing plants. Spray to wet all foliage. Best results are achieved when treated at peak flowering during winter. Do not apply during periods of drought stress. Use the higher rate on bushes over 1.5m. Further treatment may be necessary to restrict seedling re-establishment. <b>Low Volume Application:</b> (e.g. Gas gun and Splatter gun). Ensure spray contacts all foliage. Use the higher rate (1:39) on bushes over 1.5m high.
Boxthorn, African ( <i>Lycium ferocissimum</i> )	350 – 500g	50 – 75g	-	Use the lower rate for young bushes. Increase to the higher rate for large, mature bushes. Spray to wet all foliage. Do not spray during hot, dry summer periods. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. Use of CDA equipment is not recommended.
Blackberry ( <i>Rubus fruticosus</i> )	500 – 700g	75 – 100g	-	Apply from flowering to leaf fall (generally Jan-May). Plants should not be under stress of high temperature, drought or frost. Spray to wet all foliage. Use the higher rate on old, dense infestations over 2m high. Visible symptoms may

Weeds	Rate			Critical Comments
	Handgun g/100L	Knap- sack g/15L	Low Volume kg Product to L Water	
				not be fully apparent until the next season. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. Use of CDA equipment is not recommended. In Tasmania, do not treat bushes bearing mature fruit.
Crofton Weed ( <i>Eupatorium adenophorum</i> )	250g	40g	-	Apply to actively growing plants with full foliage. Spray to wet all foliage. Further treatment and/or pasture improvement are recommended to restrict seedling re-establishment.
Gorse (Furze) ( <i>Ulex europaeus</i> )	500g plus Penatra 200mL	-	-	Apply all year round but only to actively growing plants. Always add Penatra, otherwise reduced results will occur. Spray to wet all foliage. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth.
Groundsel Bush ( <i>Baccharis halimifolia</i> )	350 – 500g	50 – 75g	1:19	Apply to actively growing plants. Do not apply during winter, or during periods of summer drought stress. Use the higher rate on bushes over 2m tall. Spray to wet all foliage. Further treatment and/or pasture improvement are recommended to control seedlings and/or regrowth.  <b>LOW VOLUME APPLICATION</b> (e.g. Splatter gun and Gas gun) : use 1:19 (5%) mixture of product water. Apply 2x2mL dose per 0.5m bush height. Ensure spray contacts all foliage. Use of CDA equipment is not recommended.
Hawthorn ( <i>Crataegus spp</i> )	500 – 700g	75 – 100g	1:19	Apply to actively growing plants from flowering to leaf fall. Spray to wet all foliage. Use the higher rate on bushes over 2m tall. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth.  <b>LOW VOLUME APPLICATION</b> (e.g. Splatter gun and Gas gun): use 1:19 (5%) mixture of product water. Apply 2x2mL dose per 0.5m bush height. Ensure spray contacts all foliage.
Lantana ( <i>Lantana camara</i> )	500g	75g	1:19	Apply to actively growing plants with full foliage. Ensure complete treatment of individual plants. Do not spray during periods of summer drought stress. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. Addition of Penatra (200mL/100L) may improve control.  <b>LOW VOLUME APPLICATION</b> (e.g. Splatter gun and Gas gun): use 1:19 (5%) mixture of product water. Apply 2x2mL dose per 0.5m bush height. Ensure spray contacts all foliage. <b>SPRINKLER SPRAYER</b> : Apply 6mL of a 1:19 (5%) solution to every square metre of treated area. Use of CDA equipment is not recommended.
Mistflower ( <i>Eupatorium riparium</i> )	250g	40g	1:19	Apply to actively growing plants with full foliage. Spray to wet all foliage. Further treatment and/or pasture improvement are recommended to restrict seedling re-establishment. <b>SPRINKLER</b>

Weeds	Rate			Critical Comments
	Handgun g/100L	Knap- sack g/15L	Low Volume kg Product to L Water	
				<b>SPRAYER:</b> Apply 3mL of a 1:19 (5%) solution to every square metre of treated area.
Sifton Bush/Chinese Scrub ( <i>Cassinea arcuata</i> )	500g or 700g	75g or 100g	1:19	Apply when actively growing. Ensure complete coverage of the bush. Pasture improvement and/or re-treatment is recommended to control seedlings and/or regrowth. <b>HIGH VOLUME:</b> Use the higher rate on bushes over 1m. <b>LOW VOLUME:</b> Apply 40mL per 0.5m height. <b>WIPER APPLICATION:</b> Double pass application is required. Application is best made to small (less than 1m) green bushes.
Sweet Briar ( <i>Rosa rubiginosa</i> )	750g – 1000g	115g – 150g	1:19	Apply to actively growing plants from late flowering to leaf fall. Spray to wet all foliage. Use the higher rate on bushes over 1.5m high. Burning (after complete brownout), pasture improvement and/or further treatment are recommended to control seedlings and/or regrowth. <b>LOW VOLUME APPLICATION</b> (e.g. Splatter gun and Gas gun): use 1:19 (5%) mixture of product water. Apply 2x2mL dose per 0.5m bush height. Ensure spray contacts all foliage.

**5. UNWANTED TREE CONTROL – ensure trees are actively growing at time of treatment and not under stress of drought, waterlogging or cold.**

Method	Species Controlled	Tree Size	Mixture kg Product to L Water	Critical Comments
Cut Stump	Jarrah ( <i>Eucalyptus marginata</i> ), Longleaf Box ( <i>E. goniocalyx</i> ), Marri ( <i>E. calophylla</i> ), Messmate Stringybark ( <i>E. obliqua</i> ), Narrowleaf Peppermint ( <i>E. radiata</i> )	0-10cm basal diameter	1:30	Dilute with water in the recommended ratio. Cut tree close to ground and immediately wet stump surface thoroughly using Splatter Gun, spray swab of bush. Remove any branches on the stump and treat any cut surface.
Foliar Application : Low Volume (Gas gun or Splatter gun)	Bullich ( <i>Eucalyptus megacarpa</i> ), Marri ( <i>E. calophylla</i> ), Jarrah ( <i>E. marginata</i> )	0-1.5m height	1:30 Add Penatra at 20mL/10L spray mixture	Dilute in the recommended ratio. Calibrate Splatter Gun to apply 5mL of solution per dose as a fine spray. Apply 5mL per 0.5m tree height. Ensure spray contacts all foliage.
	Eucalyptus spp	0-1.5m height	1:10 Add Penatra at 20mL/10L spray mixture	
Foliar Application : High Volume (Knapsack or Handgun)	Eucalyptus spp, Willows ( <i>Salix babyionica</i> )	0-2.0m height	500g – 700g per 100L. For Eucalyptus spp add Penatra at 200mL/100L spray mixture	Spray to wet all foliage. Use the higher rate for trees 1.0 to 2.0m high.

## 6. AQUATIC WEED CONTROL

Situation	Weeds Rates	Critical Comments
<p><b>AQUATIC AREAS</b> For the control of emerged weeds in all bodies of fresh and brackish water which may be flowing, non-flowing, or transient. Also for weeds on margins of streams, lakes and dams and in channels and drains.</p>	<p><b>For specific rates of application refer to the Aquatic Weeds Table below.</b></p>	<p>Reduction in effectiveness may result if more than 1/4 of the above ground portion of the weed is submerged at treatment. Submerging the treated plants following treatment may result in the spray being washed from the plant surface, thus reducing effectiveness.</p> <p>Do not apply this product within 0.5km up stream of potable water intake on flowing eater (i.e. river or stream, etc) or within 0.5km of a potable water intake in a standing body of water such as a lake, pond or reservoir. Applications to moving bodies of water should be made whilst travelling upstream wherever possible to prevent concentration of this herbicide in water. When making any bankside applications, do not overspray more than 0.5m into water. Avoid spraying across moving bodies of water, or where weeds do not exist.</p> <p>When spraying floating weeds, use a low volume, low pressure boom sprayer or sprinkler sprayer. Do not submerge the weeds when spraying as this may wash the herbicide off the leaves. When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid sudden impact on habitat.</p>

### AQUATIC WEEDS TABLE

Weeds	Rate			Critical Comments
	Boom kg/ha	Handgun g/100L	Knap-sack g/15L	
Alligator Weed ( <i>Alternanthera philoxeroides</i> )	-	500g	75g	Apply when actively growing plants from summer through winter. Floating form only.
Cumbungi ( <i>Typha spp</i> )	4.5kg	700g	100g	Apply to actively growing plants at the early head to full head stage (summer-autumn). Re-treatment may be required to restrict seedling re-establishment. Application by wiper equipment is recommended (not Tasmania). <b>Refer Wiper Equipment section.</b>
Paragrass ( <i>Brachiara mutica</i> )	4.5kg	700g	100g	Apply to actively growing plants when most have reached the early head stage.
Phragmites, Common Reed ( <i>Phragmites australis</i> )	4.5kg	700g	100g	Apply to actively growing, fully developed plants approaching the early head stage. Visible symptoms of control may be slow to develop and may not be fully apparent until the next season. For application by wiper equipment <b>refer to Wiper Equipment section.</b>
Rushes ( <i>Juncus spp</i> )	-	-	-	Apply by wiper application to actively growing plants. Where there is a large proportion of dead foliage, pre-slashing is recommended. Allow adequate regrowth before treatment. <b>Refer Wiper Equipment section for application instructions.</b>
Sedge, Tall ( <i>Carex appressa</i> )	1 or 2kg	250g or 500g	40g or 75g	Apply to actively growing plants in flowering to post-flowering period (Oct-Apr). Use the lower rate only if the stand has been slashed prior to treatment. Re-treatment may be necessary. Visibly symptoms may not be fully apparent for up to 3 months. Use of CDA equipment is not recommended.
Water Couch ( <i>Paspalum distichum</i> )	4.5kg	700g	100g	Apply to actively growing plants in late summer-autumn (Feb-Mar). DO not treat after March because of the onset of winter dormancy. Full results may not be visible until the following spring. Not more than ¼ of the weed should be submerged at the time of treatment.
Water Hyacinth	3 –	500 – 700g	75 – 100g	Apply when actively growing and at or beyond the

Weeds	Rate			Critical Comments
	Boom kg/ha	Handgun g/100L	Knap-sack g/15L	
( <i>Eichornia crassipes</i> )	4.5kg			Do not add extra surfactant/Wetter unless it is approved for use in aquatic situations early bloom stage of growth. Use the higher rate for dense infestations.
Water Lettuce ( <i>Pistia stratiotes</i> )	-	500 – 700g	75 – 100g	Best results are obtained from mid-summer through to winter. Use the higher rate on dense infestations.
Waterlily, Yellow ( <i>Nymphaea mexicana</i> )	3kg	500g	75g	Apply when there is a maximum emergence of floating leaves. Allow 2-3 weeks for symptoms to develop then retreat any unaffected plants. Use low volume sprayer.

## 7. GENERAL USES

Situation	Weeds	Rate	Critical Comments
<b>NON-AGRICLUTURAL AREAS:</b> Around buildings, commercial and industrial areas, domestic and public service areas, rights of way	For specific rates of application refer Table 2 ANNUAL WEED CONTROL Table 3 PERENNIAL WEED CONTROL		This product does not provide residual weed control. For residual control of ANNUAL WEEDS only, this product may be used as a tank mixture with certain residual herbicides. <b>Refer to Tank Mixtures.</b>
<b>PASTURE prior to forest establishment</b>	For specific rates of application refer Table 2 ANNUAL WEED CONTROL Table 3 PERENNIAL WEED CONTROL		This product may be used in pasture prior to establishment of nurseries or for site preparation prior to planting.

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION**

**WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED**